

WHAT IS CLAIMED IS:
CLAIMS

1. Amino acid sequence having more than 70% homology with the sequence SEQ ID NO 2.

2. Amino acid sequence according to claim 1, having more than 85% homology with the sequence SEQ ID NO 2.

3. Amino acid sequence according to claim 1 or 2, having more than 95% homology with the sequence SEQ ID NO 2.

4. Amino acid sequence corresponding to SEQ ID NO 2 or a portion thereof selected from the group consisting of the sequences comprised between:

- the glutamic acid in position 13 and the glutamic acid in position 27,

- the alanine in position 26 and the leucine in position 36,

- the alanine in position 42 and the glutamic acid in position 57,

- the glutamic acid in position 57 and the valine in position 69,

- the valine in position 80 and the leucine in position 97,

- the arginine in position 95 and the leucine in position 112,

- the serine in position 118 and the serine in position 129,

- the valine in position 137 and the threonine in position 150,

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- the glutamic acid in position 13 and the cysteine in position 47,
 - the glutamic acid in position 13 and the glycine in position 38, and
 - 5 - the leucine in position 36 and the cysteine in position 47,
 - and the treonine in position 150 and the leucine in position 161.

10 5. Nucleotide sequence encoding the amino acid sequence according to any one of the preceding claims and presenting more than 70% homology with SEQ ID NO 1 or its complementary strand.

15 6. Nucleotide sequence according to claim 5, having more than 85% homology with the sequence SEQ ID NO 1 or its complementary strand.

7. Nucleotide sequence according to claim 5 more than 95% homology with the sequence SEQ ID NO 1 or its complementary strand.

20 8. Nucleotide sequence corresponding to the sequence SEQ ID NO 1, its complementary strand or a portion thereof selected from the group consisting of SEQ ID n° 7, SEQ ID n°8, SEQ ID n°9, SEQ ID n°11, SEQ ID n°12, SEQ ID n°13, SEQ ID n°14, SEQ ID n°15 and SEQ ID n°16.

25 9. Vector comprising the nucleotide sequence according to any one of the claims 5 to 8.

10. Inhibitor directed against the amino acid or nucleotide sequence according to any one of the claims 1 to 8.

30 11. Inhibitor according to claim 10, being an antibody, preferably a monoclonal antibody, or a portion of said antibody.

12. Diagnostic device comprising an element selected from the group consisting of the amino acid

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sequence according to any one of the claims 1 to 4, the nucleotide sequence according to any one of the claims 5 to 8, the inhibitor according to claim 10 or 11, their portions or a mixture thereof.

5 13. Method for the in vitro detection of lung injuries and diseases or oxidative stress-related diseases and disorders, especially inflammatory diseases, comprising the steps of :

- 10 - isolating a sample from a body fluid of a patient, preferably a human patient,
- possibly inhibiting the contaminants present in said sample,
- 15 - put in contact said sample with an element selected from the group consisting of the amino acid sequence according to any one of the claims 1 to 4, the nucleotide sequence according to any one of the claims 5 to 8, the inhibitor according to claim 10 or 11, their portions or a mixture thereof, and
- 20 - detecting a reaction of a molecule present in said sample with said element.

14. Pharmaceutical composition comprising a pharmaceutically acceptable carrier and an element selected from the group consisting of the amino acid sequence according to any one of the claims 1 to 4, the nucleotide sequence according to any one of the claims 5 to 8, the inhibitor according to claim 10 or 11, their portions or a mixture thereof.

15. Use of the pharmaceutical composition according to claim 14 for the manufacture of a medicament for the prevention and/or the treatment of lung injuries or diseases, and of oxidative stress-related diseases or disorders, such as specific cardio-vascular diseases like arteriosclerosis, neurodegenerative disorders such as Alzheimer's disease, Parkinson's disease, amyotrophic

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lateral sclerosis, apoptosis and inflammatory reactions, allergic reactions such as asthma, hay fever and eczema, high bone mass syndrome, osteopetrosis, osteoporosis-pseudoglioma syndrome, and Bardet-Biedl syndrome 1.

5 16. Cell transformed by the vector according to claim 9 or comprising a total deletion of its nucleotide sequence according to any one of the claims 5 to 8.

10 17. Non-human animal, preferably a non-human mammal, transformed by the vector according to claim 9 or comprising a total deletion of its nucleotide sequence according to any one of the claims 5 to 8.

GddA3

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c3

add
c6

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